

ABSTRACT

THESIS: A Study on the Effects of Sidewall Insulation on the Performance of
Exterior Paint Finishes on Frame Wood-clad Historic Houses.

STUDENT: Ronald J. Zmyslo

DEGREE: Master of Science in Historic Preservation

COLLEGE: Architecture and Planning

DATE: December 2012

PAGES: 144

Presently, there exists a large number of historic houses that have had their walls insulated with loose-fill cellulose and can now be studied 10, 20 or 30 years after they were insulated. The wood siding of these houses can be evaluated for types of paint failure and compared to comparable historic houses that have not had their sidewalls insulated. A methodology for defining common paint failure types, their presence and possibly their severity was designed. A methodology for the selecting of historic houses with both insulated and uninsulated walls was also designed. A visual documentation process was carried out, results compiled and analyzed in order to determine if a

difference could be observed between the types of paint failures on the insulated versus the uninsulated historic houses.

In addition this study looked at the most common sources for moisture intrusion into a wall cavity, how this moisture moves, and how little the role of vapor diffusion plays in the wetting of the wall cavity.